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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,225	01/22/2001	Michael Berger	P00,1950	3962

21171 7590 05/28/2004

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EXAMINER

PHAM, KHANH B

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,225

Applicant(s)

BERGER, MICHAEL

Examiner

Khanh B. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,8-15,17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,8-15,17 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.
2. Applicant's submission filed on April 13, 2004 has been entered. Claims 1, 12 and 23 have been amended.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1-4, 6, 8-15, 17, 19-24 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Bauer et al. (US 5,926,816 A), hereinafter "Bauer", and in view of Souder et al. (US 5,806,074 A), hereinafter "Souder".

As per claim 1, Bauer teaches a method for a computer-aided elimination of at least one inconsistency in a database collection containing a database and at least one copy database of the database (Col. 1 lines 20-30), comprising:

- "changing said database or said at least one copy database, thereby producing an inconsistency" at Col. 6 line 60 to Col. 7 line 3;
- "allocating at least some operations which create an inconsistency to defined conflict types" at Col. 21, Table II;
- "allocating each conflict type a decision set which is used to indicate possible decisions which can be used to eliminate an inconsistency created by at least one operation of said respective conflict type" at Col. 21, Table II;
- "eliminating said inconsistency utilizing said decision set" at Col. 22 lines 30-67;
- "ascertaining a plurality of inconsistencies and their dependencies on one another before eliminating said inconsistency" at Col. 21 lines 30-60;

Bauer does not teach the steps of: "modifying, while eliminating the inconsistency, said decision set for at least one conflict type based on dependencies of said inconsistencies such that a future conflict is eliminated by a modified method" as

claimed. However, Souder teaches a method for elimination of inconsistency in a database using a decision set for each type of conflict at Fig. 7, including the step of: "modifying, while eliminating the inconsistency, said decision set for at least one conflict type based on dependencies of said inconsistencies such that a future conflict is eliminated by a modified method" at Col. 11 lines 38-62. Thus, it would have been obvious to one of ordinary skill in the art to combine Bauer and Souder's teaching in order to "provide user extensibility to standard conflict resolution routines... The user can write their own conflict resolution routines and use them together with the standard conflict resolution routines" (Souder, Col. 11 lines 52-58). Replacing Bauer's "catalog structure" containing fixed conflict resolution settings with Souder's user modifiable conflict resolution methods would allow users to change and customize conflict resolution settings and therefore provides a more extensible and flexible system.

As per claim 2, Bauer and Souder teach the method as claimed in claim 1 discussed above. Bauer also teaches: "the step of eliminating additional inconsistencies" at Col. 22 lines 30-67.

As per claim 3, Bauer and Souder teach the method as claimed in claim 1 discussed above. Bauer also teaches: "allocating each conflict type a decision set which is used to indicate possible decisions which can be used to eliminate an inconsistency created by additional operations of the respective conflict type" at Col. 21, Table II.

As per claim 4, Bauer and Souder teach the method as claimed in claim 1 discussed above. Bauer also teaches: "said database collection contains a plurality of copy databases of said database" at Col. 6 lines 5-25.

As per claim 6, Bauer and Souder teach the method as claimed in claim 5 discussed above. Bauer also teaches the step of “ascertaining a conflict, an anomaly, or a pseudo-anomaly when an inconsistency is ascertained” at Col. 17 line 60 to Col. 18 line 55.

As per claim 8, Bauer and Souder teach the method as claimed in claim 2 discussed above. Bauer also teaches the step of “examining, after a prescribable number of eliminated inconsistencies, said database collection for further inconsistencies and their dependencies, anomalies and pseudo-anomalies” at Col. 21 lines 59-67.

As per claim 9, Bauer and Souder teach the method as claimed in claim 1 discussed above. Bauer also teaches: “said database collection contains an object-oriented database” at Col. 27 lines 50-65.

As per claim 10, Bauer and Souder teach the method as claimed in claim 1 discussed above. Bauer also teaches the step of “applying said method in a context of object-oriented software development” at Col. 27 lines 50-65.

As per claim 11, Bauer and Souder teach the method as claimed in claim 1 discussed above. Bauer also teaches the step of “applying said method in a context of creating a structured electronic document” at Col. 27 lines 50-65.

As per claim 12, Bauer teaches a system for eliminating at least one inconsistency in a database collection comprising:

- “a processor configured to allocate at least some operations which create an inconsistency to defined conflict types” at Col. 6 lines 60-67;

- “allocate to each conflict type a decision set which is used to indicate possible decisions which can be used to eliminate an inconsistency created by at least one operation of said respective conflict type” at Col. 21 lines 35-65; and
- “eliminate said inconsistency using said decision set” at Col. 22 lines 30-67.
- “wherein said processor determines a plurality of inconsistencies and their dependencies on one another before the inconsistency is eliminated” at Col. 21 lines 30-60;

Bauer does not teach the steps of: “said processor modifies, during eliminating of said inconsistency, a decision set for at least one conflict type based on dependencies of said inconsistencies such that a future conflict is eliminate by a modified method” as claimed. However, Souder teaches a method for elimination of inconsistency in a database using a decision set for each type of conflict at Fig. 7, including: “said processor modifies, during eliminating of said inconsistency, a decision set for at least one conflict type based on dependencies of said inconsistencies such that a future conflict is eliminated by a modified method” at Col. 11 lines 38-62. Thus, it would have been obvious to one of ordinary skill in the art to combine Bauer and Souder’s teaching in order to “provide user extensibility to standard conflict resolution routines... The user can write their own conflict resolution routines and use them together with the standard conflict resolution routines” (Souder, Col. 11 lines 52-58). Replacing Bauer’s “catalog structure” containing fixed conflict resolution settings with Souder’s user modifiable conflict resolution methods would allow users to change and customize conflict resolution settings and therefore provides a more extensible and flexible system.

As per claim 13, Bauer and Souder teach the system as claimed in claim 12 discussed above. Bauer also teaches: "said processor is configured to eliminate a plurality of inconsistencies" at Col. 22 lines 30-67.

As per claim 14, Bauer and Souder teach the system as claimed in claim 12 discussed above. Bauer also teaches: "said processor is configured to allocate each conflict type a decision set which is used to indicate possible decisions which can be used to eliminate an inconsistency created by a plurality of operations of said respective conflict type" at Col. 21 lines 30-65.

As per claim 15, Bauer and Souder teach the system as claimed in claim 12 discussed above. Bauer also teaches: "said processor is configured to operate a database collection that contains a plurality of copy databases of said database" at Col. 6 lines 5-25.

As per claim 17, Bauer and Souder teach the system as claimed in claim 12 discussed above. Bauer also teaches: "said processor 1s is configured to a certain a conflict, an anomaly or a pseudo-anomaly when an inconsistency is ascertained" at Col. 22 lines 30-67.

As per claim 19, Bauer and Souder teach the system as claimed in claim 13 discussed above. Bauer also teaches: "said processor is configured to examine, after a prescribable number of eliminated inconsistencies, said database collection for further inconsistencies and their dependencies, anomalies and pseudo-anomalies" at Col. 24 lines 10-67.

As per claim 20, Bauer and Souder teach the system as claimed in claim 12 discussed above. Bauer also teaches: "said processor is configured to operate on said database collection that contains an object-oriented database" at Col. 27 lines 45-65.

As per claim 21, Bauer and Souder teach the system as claimed in claim 12 discussed above. Bauer also teaches: "said processor is configured to operate in a context of object-oriented software development" at Col. 27 lines 45-65.

As per claim 22, Bauer and Souder teach the system as claimed in claim 12 discussed above. Bauer also teaches: "said processor is configured to operate in a context of creating a structured electronic document" at Col. 27 lines 45-65.

As per claim 23, Bauer teaches a set of a plurality of system for eliminating at least one inconsistency in a database collection containing a database and at least one copy database of said database comprising:

- "a plurality of processors, wherein each system has at least one processor which is configured to: allocate at least some operations which create an inconsistency to defined conflict types" at Col. 6 line 60 to Col. 7 line 3;
- "allocate to each conflict type a decision set which is used to indicate possible decisions which can be used to eliminate an inconsistency created by at least one operation of said respective conflict type" at Col. 21, Table II;
- "eliminate said inconsistency using said decision set" at Col. 22 lines 30-67;
- "said systems being configured to be coupled to one another to determined a plurality of inconsistencies and their dependencies on one another before eliminating said inconsistency" at Col. 21 lines 30-60;

Bauer does not teach the steps of: “modifying, while eliminating the inconsistency, said decision set for at least one conflict type based on dependencies of said inconsistencies such that a future conflict is eliminated by a modified method” as claimed. However, Souder teaches a method for elimination of inconsistency in a database using a decision set for each type of conflict at Fig. 7, including the step of: “modifying, while eliminating the inconsistency, said decision set for at least one conflict type based on dependencies of said inconsistencies such that a future conflict is eliminated by a modified method” at Col. 11 lines 38-62. Thus, it would have been obvious to one of ordinary skill in the art to combine Bauer and Souder’s teaching in order to “provide user extensibility to standard conflict resolution routines... The user can write their own conflict resolution routines and use them together with the standard conflict resolution routines” (Souder, Col. 11 lines 52-58). Replacing Bauer’s “catalog structure” containing fixed conflict resolution settings with Souder’s user modifiable conflict resolution methods would allow users to change and customize conflict resolution settings and therefore provides a more extensible and flexible system.

As per claim 24, Bauer teaches a device comprising:

- “an identification unit to identify conflict between a database and a database copy” at Col. 17 lines 60-65;
- “a dependency unit to determine interdependencies between conflicts” at Col. 25 lines 40-55;
- “a solution procedure unit to identify, for each conflict, the type of operation which created the conflict and a solution procedure for the type of operation,

to thereby form a set of solution procedures for the respective conflicts” at Col. 21 lines 30-65 and Col. 22 lines 30-50;

- “an elimination unit to eliminate the conflicts using the modified set of solution procedure” at Col. 22 lines 30-65.

Bauer does not explicitly teach “a modification unit to modify the set of solution procedures based on the interdependencies between the conflicts, to thereby produce a modified set of solution procedures” as claimed. However, Souder teaches a method for elimination of inconsistency in a database using a decision set for each type of conflict at Fig. 7, including: “a modification unit to modify the set of solution procedures based on the interdependencies between the conflicts, to thereby produce a modified set of solution procedures” at Col. 11 lines 38-62. Thus, it would have been obvious to one of ordinary skill in the art to combine Bauer and Souder’s teaching in order to “provide user extensibility to standard conflict resolution routines... The user can write their own conflict resolution routines and use them together with the standard conflict resolution routines” (Souder, Col. 11 lines 52-58). Replacing Bauer’s “catalog structure” containing fixed conflict resolution settings with Souder’s user modifiable conflict resolution methods would allow users to change and customize conflict resolution settings and therefore provides a more extensible and flexible system.

Response to Arguments

6. Applicant's arguments filed 4/13/2004 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 1, 12, 23-24, Bauer does not explicitly teach the step of: "modifying, while eliminating the inconsistency, said decision set for at least one conflict type based on dependencies of said inconsistencies such that a future conflict is eliminated by a modified method" as claimed. However, The newly found Souder reference teaches a method for elimination of inconsistency in a database using a decision set for each type of conflict at Fig. 7, including the step of: "modifying, while eliminating the inconsistency, said decision set for at least one conflict type based on dependencies of said inconsistencies such that a future conflict is eliminated by a modified method" at Col. 11 lines 38-62. Motivation to combine the references is also provided in section 5 of this office action.

Conclusion

7. The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is (703) 305-9601 for faster service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (703) 308-7299. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Khanh B. Pham
Examiner
Art Unit 2177

KBP
May 24, 2004


SRIRAMA CHANNARAYANA
PRIMARY EXAMINER